

# ITU COMPUTER ENGINEERING DEPARTMENT

## BLG 233E DATA STRUCTURES

### HOMEWORK - 2 : Banking Application



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### REPORT

I created 3 structs for main list, people and their number. I used fgets function to read from file in a while loop and assigned the fgets function's return value to char array. The functions in the main list works with respect to first element of the array. For example, if it is 'A' add function works. All functions except destruct and list functions use the char array which has the value of the return value of fgets(). In all functions except list and destruct functions, this char array is being separated and commands work according to separated parts of the char array. In the main list I separated the list to two different lists. One for premium members and the other one for normal members. Adding function works with respect to these two lists. Once the adding completed. The premium list and the normal list is merged and the main list is created by assigning the head member of premium list to head of the main list. Yet if there is no premium member head member of the normal list is assigned to head member of main list. Other functions work normally in main list. Create and destruct functions are called at the beginning of the program and the end of the program respectively.

```
Masaüstü — -bash — 80x24
[Can-MacBook-Pro:desktop canaltinigne$ g++ odev.cpp -o den ]
[Can-MacBook-Pro:desktop canaltinigne$ ./den ]
Can-MacBook-Pro:desktop canaltinigne$
```

```
input_file.txt
A;Ali;Aksu;P;2;deposit;withdraw
P
A;Mithat;Köse;P;3;deposit;credit;withdraw
P
V
P
V
P
A;Can;Altinigne;N;2;deposit;credit
P
V
P
S;Ali;Veli
V
P
V
P
E
```

```
output_file.txt
New customer is added
Ali Aksu P deposit withdraw
New customer is added
Ali Aksu P deposit withdraw
Mithat Köse P deposit credit withdraw
Next transaction is processed
Mithat Köse P deposit credit withdraw
Ali Aksu P withdraw
Next transaction is processed
Ali Aksu P withdraw
Mithat Köse P credit withdraw
New customer is added
Ali Aksu P withdraw
Mithat Köse P credit withdraw
Can Altinigne N deposit credit
Next transaction is processed
Mithat Köse P credit withdraw
Can Altinigne N deposit credit
Ali Veli could not be found
Next transaction is processed
Mithat Köse P withdraw
Can Altinigne N deposit credit
Next transaction is processed
Can Altinigne N deposit credit
Program exits
```